

Background

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Energy & Climate Change Portal

This page is your resource for background information on the city's energy and climate program.

The goal

In May 2002, The Boulder City Council adopted the Kyoto Protocol resolution, also referred to as the Greenhouse Gas Emissions Reduction Goal. The initial goal is to reduce Boulder's greenhouse gas emissions by 7 percent below 1990 levels by 2012. The resolution stems from concerns about the potential negative impacts of climate change on the Rocky Mountain region and beyond and builds on environmental policies and goals adopted in the Boulder Valley Comprehensive Plan and the City Council's Environmental Goal.

Boulder & Climate Change

There is increasing scientific evidence and widespread consensus among scientists that humans are causing rapid and unprecedented changes in the global climate, primarily through the burning of fossil fuels. For Colorado, climate change will likely mean diminished snow pack, increased drought, more insect outbreaks in forests, a longer and earlier wildfire season, reduced habitat for native species, and less economic growth, according to a multitude of studies on the impacts of climate change on the Rocky Mountain region. Diminished snow pack and shrinking water supply would drastically hurt the Front Range's tourism, skiing, and farming industries, as well as all related businesses. For more information about climate change in Colorado, please visit the EPA's Global Warming website or the Rocky Mountain Climate Organization's website.

Boulder's Energy

Energy is an integral part of life in the city of Boulder. Many of our daily activities rely on electricity and natural gas, which cost Boulder's residents and businesses around \$85 million a year. Fueling Boulder's cars and trucks is another big expense. While Boulder has the highest proportion of wind power subscribers in Xcel Energy's territory, the majority of our electricity is produced from burning coal at the Valmont power plant. Burning coal and other fossil fuels damages the environment by causing air and water pollution, resource depletion, and by contributing to global climate change.

Xcel Energy provides electricity to all sectors in Boulder. Xcel provides natural gas to Boulder's residential sector, as well as many commercial customers. However, the natural gas market is deregulated and some of Boulder's larger companies contract for natural gas through other providers. The city of Boulder operates eight hydroelectric plants and sells the generated electricity to Xcel Energy.

The passage of Amendment 37 requires Xcel Energy to get three percent of retail sales in 2007-2010 and ten percent by 2015 from renewable sources. While it is anticipated that most of the requirement will be accomplished through wind farms, the law requires that four percent of the total renewable energy come from solar. The rulemaking process is not complete, but the law dictates that Xcel must offer a minimum solar energy rebate of \$2 per watt. If Xcel meets the renewable energy target, Boulder emissions from electricity use will drop by ten percent by 2015.

Because Boulder does not have a municipally-owned utility, it cannot control the resource mix used to produce electricity for Boulder. However, the city encourages its residents and businesses to support renewable energy resources by signing up for Windsource, purchasing renewable energy certificates, or installing on-site generation. The city is currently assessing the feasibility of acquiring the power system from Xcel at the expiration of the current franchise agreement in 2010.

Boulder 's Emissions Inventory

Achieving the Kyoto Protocol goal will require nearly a 24 percent reduction in overall emissions between now and 2012. The charts below show Boulder 's emissions inventory in metric tons of carbon dioxide equivalent (mtCO₂e), as well as sources of emissions and each sector's contribution. The inventory is based on electricity and natural gas information provided by Xcel Energy and transportation data collected from the city's Transportation Department. The city uses an Inventory Maintenance System to compile annual data and track the city's progress towards the goal. [Click here \(193.53 KB\)](#) to view the inventory report.

The Climate Action Plan

To achieve the emissions reduction goal, City Council directed staff in the Office of Environmental Affairs to develop a local action plan that would serve as a roadmap to Boulder 's Kyoto goal. This Climate Action Plan will provide a framework to compare and analyze alternative policies and strategies, in order to facilitate the decision-making process. A strategy group has been formed to discuss overarching strategies and implications for achieving the goal. Tactical groups will be convened to discuss programmatic details and offer comments of staff work. It is anticipated that the public will be invited to comment on the draft Climate Action Plan. A consultant team is currently evaluating long-term funding mechanisms to support implementation of the plan. A preliminary report should be presented to Council in the first quarter of 2006.

[View the Climate Action Plan \(5.68 MB\)](#)

Frequently Asked Questions about the Climate Action Plan

Existing activities that address climate change

The city of Boulder has several programs that help to reduce the rate of increase in GHG emissions. Program areas include energy conservation and efficiency, renewable energy, solid waste reduction, transportation, open space acquisition and urban forestry. Additionally, the city helped dozens of local businesses receive utility rebates for lighting retrofit projects. The businesses are expected to save over \$135,000 a year and prevent the release of over 1,870,000 lbs of carbon dioxide. The city's outreach activities are ongoing and growing. Please visit the residential and commercial pages to learn more about programs and resources the city offers.

Renewable energy has an important presence in Boulder . The city of Boulder 's North Boulder Recreation Center has the largest solar hot water system in the state and receives half of its electricity from wind power. The city purchases wind power for almost 100% of the Municipal Building electricity use. In addition, Boulder residents and businesses represent 19% of total subscribers to Xcel Energy's Windsource program.

How do Americans feel about Climate Change?

A recent poll of 812 Americans by the University of Maryland's Program on International Policy Attitudes (PIPA), found that "virtually all respondents – 94 percent – said the U.S. should limit its greenhouse gases at least as

much as the other developed countries do on average. Nearly half -- 44 percent -- think the U.S. should do more than average. In addition, 75 percent said that global warming requires action and only 21 percent opposed any steps with economic costs. This can be attributed to the perceived impact of taking action on climate change on the economy. Given two choices, 71 percent chose the position that "the U.S. economy will become more competitive because [steps taken to reduce greenhouse gas emissions] will result in more efficient energy use, saving money in the long run." By contrast, 23 percent chose the position that "efforts in the United States to reduce the release of greenhouse gases will cost too much money and hurt the U.S. economy," the survey said. Complete survey results